

### **REMARKS**

In the Office Action, the Examiner has rejected independent claims 1 and 12 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,600,149 to Schulz et al. Applicants respectfully traverse the Examiner's rejections for at least the reasons discussed below.

First, Applicants respectfully submit that U.S. Patent No. 6,600,149 to Schulz et al. is not a proper 102(b) reference. The '149 patent was issued on July 29, 2003, and thus was not issued more than one year before the present application's filing date.

Regardless, Applicants further respectfully submit that Schulz, even if it was a proper reference, does not disclose Applicants' invention as claimed in independent claims 1 and 12. As will be further discussed below, in claims 1 and 12, Applicants claim that the optical fiber is integrated in the surface of the workpiece to be measured in a recess in the surface of the workpiece. Thus, the recess is formed in the surface of the workpiece that is measured and the optical fiber Bragg grating sensor is integrated in this recess in the surface of the workpiece. Applicants respectfully submit that even if Schulz discloses an optical fiber disposed in a recess, Schulz's recess is not included in the surface of the workpiece. Schulz's recess is merely included in a plate that is part of the sensor itself. It is not included in the surface of the workpiece.

As discussed above, even if Schulz discloses notches in a v-groove plate (355, 403, 453, 503, and 659), as argued by the Examiner, these notches, as acknowledged by the Examiner and as disclosed in Schulz, are included in a "plate" and not in the surface of the workpiece, as claimed by Applicants. As disclosed in Schulz, "[t]his chemical sensor 350 consists of a fiber grating sensor 353 that is formed from a single or multiple gratings on birefringent or non-birefringent fiber placed into a v-groove 355. This plate keeps the fiber in place and can help maintain the proper orientation 357 of the fiber if a grating in birefringent fiber is used." Col. 6, lines 40-46. See also col. 6, line 50 – col. 7, line 12 and col. 7 lines 21 – 30 with respect to plates 403, 453, 503, and 659. Thus,

for each of the Examiner's argued recesses in the "plates" of Schulz, these recesses are included in a plate that is a part of the sensors themselves, and are therefore not included in the surface of the workpiece, as claimed by Applicants. Thus, Applicants claim an optical fiber Bragg grating sensor in a recess of a workpiece. Schulz merely discloses a sensor that includes a plate and an optical fiber. In Schulz, any "workpieces" where the measurement takes place are the chemical sensitive coatings across from the plates and in these coatings/workpieces no recesses are included. The fibers of Schulz therefore are placed on the surface of the coatings, and not in any recess in the coatings. Therefore, Applicants respectfully submit that Schulz, even if it could be considered prior art to Applicants' invention, does not disclose Applicants' invention for at least these reasons. As such, Applicants respectfully submit that independent claims 1 and 12 are allowable over Schulz.

Further in this Amendment, Applicants have amended claims 1 and 12 to delete the feature where the fiber is bonded in the recess. Whereas Applicants respectfully submit that Applicants' specification adequately describes this feature of Applicants' invention, Applicants have deleted this feature to further the prosecution of the application. As such, Applicants respectfully submit that the Examiner's rejections under 35 U.S.C. § 112, first paragraph, and the objection to the drawing, which were both based on this feature, have been overcome.

Applicants have also amended claims 1, 9, and 12 as suggested by the Examiner to correct any informality issues. Further, Applicants have amended several of the dependent claims for purposes of form.

Applicants respectfully submit that the application is now in condition for allowance with claims 1, 5-12, 15, 17, and 19-20 being allowable.

If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned. As provided for above, this paper includes a Petition for a one month extension of time.

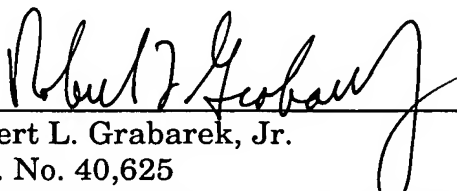
Appl. No. 10/646,708  
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Amendment to Office Action of 06/12/2006

Please charge any deficiency in fees or credit any overpayments to Deposit  
Account No. 05-1323 (Docket No. 011235.52686US).

Respectfully submitted,

CROWELL & MORING LLP

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